# California Regional Water Quality Control Board
## Los Angeles Region

320 W. 4th Street, Suite 200, Los Angeles, California 90013
(213) 576-6600 • FAX (213) 576-6640
http://www.waterboards.ca.gov/losangeles

**Matthew Rodriquez**
*Secretary for*
*Environmental Protection*

**Edmund G. Brown Jr.**
*Governor*


October 17, 2011

State Clearinghouse
Governor's Office of Planning and Research
1400 Tenth Street, Room 222
Sacramento, CA 95814

**EVALUATION OF ENHANCED IN SITU BIOREMEDIATION OF VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER, RHO-CHEM FACILITY, 425 ISIS AVENUE, INGLEWOOD, CALIFORNIA [EPA ID NUMBER CAD 008 354 432] AND CORRECTIVE ACTION CONSENT AGREEMENT DOCKET [HWCA-P3-01/02-005]**

Dear Interested Parties:

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) is the public agency with primary responsibility for the protection of groundwater and surface water quality for all beneficial uses within major portions of Los Angeles and Ventura Counties, including the referenced site.

The Rho-Chem facility (Rho-Chem or site) remedial efforts are managed by CEMEX, Inc. (CEMEX) and Rho-Chem, LLC (formerly known as Rho-Chem Corporation; collectively the Respondents). The site is approximately 1.1-acres in size and is located at 425 Isis Avenue, Inglewood, California. Previous environmental investigations have identified groundwater impacted by volatile organic compounds (VOCs), including tetrachlorethene (PCE), trichloroethene (TCE), and cis-1,2-dichloroethene (cis-1,2-DCE) at the site.

Under the oversight of the California Environmental Protection Agency (Cal/EPA) Department of Toxic Substance Control (DTSC), the Respondents have been conducting the investigation, remediation and monitoring of soil and groundwater at the site. CEMEX, through their environmental contractor AMEC, Inc. (AMEC), has completed a bench-scale study of biodegradation of chlorinated VOC-impacted groundwater (bench scale study; AMEC, 2010a) and are currently proposing a pilot study to evaluate enhanced in-situ bioremediation of VOCs in groundwater at the site (pilot study; AMEC, 2010b), which has been reviewed and acknowledged by DTSC (2010).

Bench scale study results indicated that a carbon substrate (Wilclear Plus Sodium Lactate with Accelerite) in combination with a microbial consortium (Sirem's KB-1™ containing a Dehalococcoides ethenogenes culture) and an emulsified oil substrate (EOS) could enhance in situ biological treatment of VOC-impacted groundwater beneath the site by creating groundwater conditions that would facilitate reductive dechlorination of VOCs to the non-harmful compounds ethene and ethane. The proposed pilot study will obtain a site-specific understanding of the amount of carbon substrate and KB-1™ that will be necessary to promote in-situ bioremediation, as well as the real-time biodegradation rates and overall effectiveness of the carbon substrate and KB-1™ combination that provided positive results during the bench scale study.

The site-specific waste discharge requirements have been developed for the proposed KB-1™ remediation activities at the site and also cover the use of the carbon source amendments and sodium bromide solution as a tracer element.

In accordance with the California Environmental Quality Act (CEQA), this Regional Board has prepared an Initial Study for the proposed groundwater remedial activities. The Regional Board has determined that the proposed remediation and the use of electron donors with KB-1™ will not have a significant adverse effect on the environment, and therefore, has prepared a Mitigated Negative Declaration. The Regional Board has also prepared Tentative Waste Discharge Requirements to regulate the use of electron donors with chlorinated ethene degrading consortium, referred to as Sirem's KB-1™ and to monitor groundwater quality and groundwater flow conditions during remediation.

The enclosed 15 copies of the Notice of Completion & Environmental Document Transmittal, Notice of Intent to Adopt a Mitigated Negative Declaration, Initial Study, Tentative Resolution Approving the Environmental Checklist and Adopting Mitigated Negative Declaration, and Tentative Waste Discharge Requirements describe the location and nature of the project. The Regional Board hereby submits the Notice of Completion & Environmental Document Transmittal, Notice of Intent to Adopt a Mitigated Negative Declaration, Initial Study, Tentative Resolution Approving the Environmental Checklist and Adopting Mitigated Negative Declaration, and Tentative Waste Discharge Requirements to the State Clearinghouse for review and distribution. This Regional Board will accept comments from any interested party until November 21, 2011.

If you have any questions, please call me at (213) 576-6683.

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Eric Wu, Ph.D., P.E.
Chief of Groundwater Permitting Unit

Enclosures:

1. Notice of Completion & Environmental Document Transmittal
2. Notice of Intent to Adopt a Mitigated Negative Declaration
3. Initial Study, Part 1 and Part 2
4. Tentative Resolution Approving the Environmental Checklist and Adopting Mitigated Negative Declaration
5. Cover Letter Transmitting Tentative Waste Discharge Requirements
6. Tentative Waste Discharge Requirements
7. Tentative Monitoring and Reporting Program

cc: United States Environmental Protection Agency, Region 9, Permits Branch (WTR-5)
Department of Fish and Game, Region 5
Richard Allen, California Department of Toxic Substance Control, Chatsworth
Chi Diep, California Department of Public Health, Drinking Water Program
Brian Hooper, Los Angeles County Department of Public Works, Waste Management Division
Carl G. Brooks, South Coast Air Quality Management District
Ted Johnson, Water Replenishment District of Southern California
Brian Mastin, CEMEX, Inc
Ramon Robles, Rho-Chem LLC
Linda Conlan, AMEC